

U.S.S.N. 10,677,155

**BEST AVAILABLE COPY****Remarks**

Thorough examination by the Examiner is noted and appreciated.

The claims are listed as originally presented. No amendments have been made to the claims.

**Claim Rejections under 35 USC 102**

1. Claims 1-6, 8-13, 15-18 and 20 stand rejected under 35 USC Section 102(b) as being anticipated by Ishii et al. (US 5,493,236).

Ishii et al. disclose a test analysis apparatus for optical beam induced current (OBIC) and luminous analysis from a rear surface of a semiconductor wafer (see Abstract). In the method and apparatus of Ishii a test pulse signal is supplied to respective electrode pads (electrical contact portions) on the front surface of the wafer (see Abstract) to actuate the semiconductor wafer circuitry while at the same time attempting to detect a current generated in the circuitry from a defective portion of the circuitry (e.g., P-N junctions col 2, lines 55). Simultaneously the semiconductor wafer is irradiated from the

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rear side and any luminosity from the semiconductor wafer is detected (see col 3, lines 43-60; col 4, lines 19-28).

Thus Ishii et al. fails to disclose several aspects of Applicants disclosed and claimed invention including:

"a movable electrical probe tip positioned with respect to the electrical test head such as to electrically stress a portion of the microelectronic product **other than an electrical contact portion of the microelectronic product.**"

Ishii et al. fail to disclose positioning of the electrical probe tip as Applicants have disclosed and claimed "to electrically stress a portion of the microelectronic product **other than an electrical contact portion of the microelectronic product.**"

As noted, Ishii et al. disclose applying an electrical Voltage to an electrical contact portion (electrode pads) to actuate a semiconductor device.

Ishii et al. is clearly insufficient to anticipate

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Applicants disclosed and claimed invention as claimed in both Applicants independent claims and dependent claims.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Further, with respect to Claims 3 and 4 Ishii et al. also fail to disclose "a ceramic substrate product" and "an optoelectronic product".

Further, with respect to claim 6, nowhere do Ishii et al. disclose:

"a radiation beam source positioned with respect to the electrical probe tip such as to simultaneously radiation stress the portion of the microelectronic product other than the

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electrical contact portion of the microelectronic product".

Further, with respect to claim 9, nowhere do Ishii et al. disclose:

"sequentially movably positioning the electrical probe tip and electrically biasing the microelectronic product while simultaneously electrically testing the microelectronic product."

### Claim Rejections under 35 USC 103

2. Claims 7, 14, and 19 stand rejected under 35 USC Section 103(a) as being unpatentable over by Ishii et al., above, in view of Ohno et al. (US 5, 091,962).

Applicants reiterate the comments made above with respect to Ishii et al.

Ohno et al., like, Ishii et al., also teach **applying a test signal to electrode pads** (electrical contact portions) with a

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plurality of test probes (see Abstract) where the object of the invention is to provide a wafer probing test machine capable of **positioning pads (electric contact portions) on the electrical probes with higher accuracy** (see col lines 11-16).

Thus both Ohno et al. and Ishii et al. teach away from the principle of operation of Applicants disclosed and claimed invention by teaching applying the electric signal to the electrical contact portions (electrical pads). Both the methods of Ishii et al. and Ohno et al. would be made unsuitable for their intended purpose of the electrical signal of Ishii et al. or Ohno et al. were applied to other than electrical contact portions to cause an electrical stress.

"Finally, the prior art reference (or references when combined) must teach or suggest **all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from

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the claimed invention." *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

"If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123, USPQ 349 (CCPA 1959).

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Since the cited references, singly or in combination, fail to produce Applicants disclosed and claimed invention and therefore fail to make out a *prima facie* case of obviousness with respect to Applicants independent claims, neither has a *prima facie* case been made out with respect to Applicants dependent claims.

Based on the foregoing, Applicants respectfully submit that

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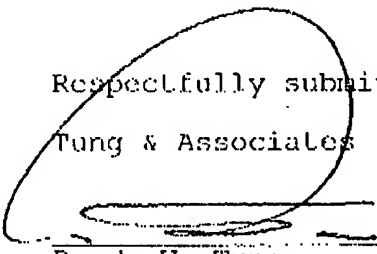
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the Claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

In the event that the present invention as claimed is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

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